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# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 1

of 29

Application Number	10/717,422
Filing Date	November 19, 2003
First Named Inventor	Vail III
Group Art Unit	3672
Examiner Name	Unknown
Attorney Docket Number	WEAT/0526.P1
Submission Date	July 30, 2004

## U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
7	A1	US-6742606 B2	06/01/2004	Melcalfe, et al.	
	A2	US-6702040 B1	03/09/2004	Sensenig	
	A3	US-6668937	12/30/2003	Murray	
	A4	US6634430	10/21/2003	Dawson et al.	
	A5	US-6547017 B1	04/15/2003	Vail, III	
	A6	US-6543552 B1	04/08/2003	Melcalfe, et al.	
	A7	US-6536993 B2	03/25/2003	Strong, et al.	
	A8	US-6457532 B1	10/01/2002	Simpson	
	A9	US-6263987 B1	07/24/2001	Vail, III	
	A10	US-6216533 B1	04/17/2001	Woloson, et al.	
	A11	US-6189616 B1	02/20/2001	Gano, et al.	
	A12	US-6186233 B1	02/13/2001	Brunet	
	A13	US-6155360	12/05/2000	McLeod	
	A14	US-6135208	10/24/2000	Gano, et al.	
	A15	US-6098717	08/08/2000	Bailey et al.	
	A16	US-6070671	06/06/2000	Cumming et al.	
	A17	US-6035953	03/14/2000	Rear	
	A18	US-6024169	02/15/2000	Haugen	

## FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				
7	B1	DE 3 213 464	10/13/1983	Reimer		
	B2	DE 4 133 802	10/22/1992	Andrejewski		
	B3	EP 0 235 105	09/02/1987	Kjell-Oue		
	B4	EP 0 265 344	04/27/1988	Legendre		
	B5	EP 0 462 618	12/27/1991	Karlsson		

Examiner

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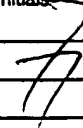
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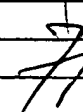
Application Number	10/717,422
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First Named Inventor	Vail III
Group Art Unit	3672
Examiner Name	Unknown
Attorney Docket Number	WEAT/0526.P1
Submission Date	July 30, 2004

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		Number-Kind Code <sup>2</sup> (if known)			
	A19	US-5887668	03/30/1999	Haugen et al.	
	A20	US-5887655	03/30/1999	Haugen, et al.	
	A21	US-5836409	11/17/1998	Vail, III	
	A22	US-5826651	10/27/1998	Lee, et al.	
	A23	US-5803666	09/08/1998	Keller	
	A24	US-5787978	08/04/1998	Carter, et al.	
	A25	US-5785132	07/28/1998	Richardson, et al.	
	A26	US-5717334	02/10/1998	Vail, III, et al.	
	A27	US-5706905	01/13/1998	Barr	
	A28	US-5615747	04/01/1997	Vail, III	
	A29	US-5575344	11/19/1996	Wireman	
	A30	US-5560440	10/01/1996	Tibbitts	
	A31	US-5553679	09/10/1996	Thorp	
	A32	US-5546317	10/10/1995	Hood, III, et al.	
	A33	US-5526880	06/18/1996	Jordan, Jr., et al.	
	A34	US-5520255	05/28/1996	Barr et al.	
	A35	US-5477925	12/26/1995	Trahan, et al.	
	A36	US-5458209	10/17/1995	Hayes, et al.	
	A37	US-5435400	07/25/1995	Smith	
	A38	US-5402856	04/04/1995	Warren, et al.	

**FOREIGN PATENT DOCUMENTS**

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		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				
	B6	EP 0 554 568	08/11/1993	Tibbitts, et al.		
	B7	EP 0 961 007	12/06/1999	Gano, et al.		
	B8	EP 1 006 260	06/07/2000	Fincher, et al.		
	B9	GB 2 335 217	09/15/1999	Desai		

Examiner Date Considered 

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Application Number 10/717,422

Filing Date November 19, 2003

First Named Inventor Vail III

Group Art Unit 3672

Examiner Name Unknown

Attorney Docket Number WEAT/0526.P1

Submission Date July 30, 2004

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		Number-Kind Code <sup>2</sup> (if known)			
	A39	US-5361859	11/08/1994	Tibbitts	
	A40	US-5322127	06/21/1991	McNair et al.	
	A41	US-5318122	06/07/1994	Murray, et al.	
	A42	US5181571	01/27/1993	Mueller	
	A43	US-5109924	05/05/1992	Jurgens, et al.	
	A44	US-5052483	10/01/1991	Hudson	
	A45	US-4904119	02/27/1990	Legendre, et al.	
	A46	US-4848469	07/18/1989	Baugh et al.	
	A47	US-4836299	06/06/1989	Bodine	
	A48	US-4825947	05/02/1989	Mikolajczyk	
	A49	US-4699224	10/13/1987	Burton	
	A50	US-4681158	07/21/1987	Pennison	
	A51	US-4620600	11/04/1986	Persson	
	A52	US-4604818	08/12/1996	Inoue	
	A53	US4595058	06/17/1986	Nations	
	A54	US-4515045	05/07/1985	Gnatchenko, et al.	
	A55	US-4489793	12/25/1984	Boren	
	A56	US-4483399	11/20/1984	Colgate	
	A57	US-4466498	08/21/1984	Bardwell	

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		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				
	B10	GB 1 469 661	04/06/1977	Swobda, et al.		
	B11	GB 1 277 461	06/03/1972			
	B12	GB 1 448 304	09/02/1976			
	B13	GB 1 582 392	01/07/1981			

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Application Number

10/717,422

Filing Date

November 19, 2003

First Named Inventor

Vail III

Group Art Unit

3672

Examiner Name

Unknown

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7	A58	US-4446745	05/08/1994	Stone, et al.	
	A59	US-4396078	08/02/1983	Inoue	
	A60	US-4396077	09/12/1981	Radtke	
	A61	US-4274778	06/23/1981	Putnam, et al.	
	A62	US-4221269	09/09/1980	Hudson	
	A63	US-4189185	02/19/1980	Kammerer, Jr., et al.	
	A64	US-4186628	02/05/1990	Bonnice	
	A65	US-4100981	07/18/1978	Chaffin	
	A66	US-4083405	04/11/1978	Shirley	
	A67	US-3934660	01/27/1978	Nelson	
	A68	US-3901331	08/26/1975	Djurovic	
	A69	US-3785193	01/15/1974	Kinley et al.	
	A70	US-3700048	10/24/1972	Desmoulins	
	A71	US-3691624	09/19/1972	Kinley	
	A72	US-3669190	06/13/1972	Sizer et al.	
	A73	US-3624760	11/30/1971	Bodine	
	A74	US-3575245	04/20/1971	Cordary, et al.	
	A75	US-3489220	01/13/1970	Kinley	
	A76	US3387893	06/11/1968	Hoever	

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7	B14	GB 2 053 088	02/04/1981	Gebhart		
	B15	GB 2 201 912	09/14/1988	Dinsdale		
	B16	GB 2 313 860	02/10/1997	Lee		
	B17	GB 2 320 270	06/17/1998	Armell, et al.		
	B18	GB 2 333 542	07/28/1999	Kirk		

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	A77	US-3353599	11/21/1967	Swift	
	A78	US-3191680	06/29/1965	Vincent	
	A79	US-3191677	06/29/1965	Kinley	
	A80	US-3169592	02/26/1965	Kammerer	
	A81	US-3102599	09/03/1963	Hillburn	
	A82	US-3087546	04/30/1963	Wooley	
	A83	US-2805043	09/03/1957	Williams	
	A84	US-2765146	10/02/1956	Williams	
	A85	US-2764329	09/25/1956	Hampton	
	A86	US-2743087	04/24/1956	Layne, et al.	
	A87	US-2663073	12/22/1953	Bieber et al.	
	A88	US-2641444	06/09/1953	Moon	
	A89	US-2627891	02/10/1953	Clark	
	A90	US-2499630	03/07/1950	Clark	
	A91	US-2324679	07/20/1943	Cox	
	A92	US2295803	09/15/1940	O'Leary	
	A93	US-2216895	10/08/1940	Stokes	
	A94	US-2060352	11/11/1936	Stokes	

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	B19	GB 2 365 463	02/20/2002	Giancarlo		
	B20	GB 2 382 361	05/28/2003	Hewson, et al.		
	B21	GB 2 216 926	10/18/1989	Haloid		
	B22	GB 2 348 223	09/27/2000	Cook, et al.		

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7	A95	US-2049450	08/04/1936	Johnson	
	A96	US-2017451	10/15/1935	Wickersham	
	A97	US-1981525	11/20/1934	Price	
	A98	US-1880218	10/04/1932	Simmons	
	A99	US-1342424	06/08/1920	Cotten	
	A100	US-1301285	04/22/1919	Leonard	
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	A104	US-2003/0146023	08/07/2003	Pia	
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	A111	US-5833002	11/10/1998	Holcombe	
	A112	US-5615747	04/01/1997	Vail, III	
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	A114	US-5197553	03/30/1993	Letumo	
	A115	US-4962822	01/16/1990	Pascale	
	A116	US-4960173	10/02/1990	Cognevich, et al.	
	A117	US-4651837	03/24/1987	Mayfield	
	A118	US-3603411	09/07/1971	Link	
	A119	US-3552508	01/05/1971	Brown	

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	B23	GB 540 027	10/02/1941			
	B24	GB 7 928 86	04/12/1958			
7	B25	GB 8 388 33	06/22/1960			
	B26	GB 9 977 21	07/07/1965	Garnier, et al.		

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Submission Date

July 30, 2004

## **FOREIGN PATENT DOCUMENTS**

Examiner Initials <sup>a</sup>	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>d</sup>
		Country Code <sup>2</sup> -Number <sup>3</sup> -Kind Code <sup>4</sup> (if known)				
7	B27	USSR 112631	01/10/1956	Barshai, et al.		
	B28	USSR 1304470	08/31/1984	Gelfat, et al.		
	B29	USSR 1808972	05/22/1991	Voroshbitov, et al.		
	B30	USSR 247162	05/10/1967	Barshai, et al.		
	B31	USSR 395557	12/30/1971	Barshai, et al.		
	B32	USSR 415346	03/03/1972	Barshai, et al.		
	B33	USSR 461218	04/23/1973	Barshai, et al.		
	B34	USSR 481689	06/09/1972	Barshai, et al.		
	B35	USSR 501139	12/14/1973	Barshai, et al.		
	B36	USSR 581238	02/23/1976	Barshai, et al.		
	B37	USSR 583278	08/30/1974	Barshai, et al.		
	B38	USSR 585266	07/26/1974	Barshai, et al.		
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	B47	WO 90/06418	06/14/1990	Schulze-Bechinghausen		
	B48	WO 92/01139	01/23/1992	Nobilequ		
	B49	WO 92/18743	10/29/1992	Pietras		
	B50	WO 92/20899	11/26/1992	Ellis		
	B51	WO 93/24728	12/09/1993	Simpson		

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Date Considered

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This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450. If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

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Sheet 8

of 29

Application Number

10/717,422

Filing Date

November 19, 2003

First Named Inventor

Vail III

Group Art Unit

3672

Examiner Name

Unknown

Attorney Docket Number

WEAT/0526.P1

Submission Date

July 30, 2004

**FOREIGN PATENT DOCUMENTS**

Examiner Initials	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>2</sup>
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				
7	B52	WO 95/10686	04/20/1995	Lorenz, et al.		
	B53	WO 96/28635	09/19/1996	Strong, et al.		
	B54	WO 98/09053	03/05/1998	Murray, et al.		
	B55	WO 99/23354	05/14/1999	Metcalfe		
f	B56	WO 99/37881	07/29/1999	Kirk, et al.		
	B57	WO 99/50528	10/07/1999	Kuck, et al.		
	B58	WO 99/64713	12/16/1999	Wardley		
	B59	WO 99/11902	03/11/1999	Hollingsworth		
	B50	FR 2053088	07/20/1970	Gottwald		
	B72	WO 00/08293	02/17/2000	Van Drentham-Susman		
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	B74					
	B75					
	B76					
	B77					
	B78					

Examiner

Date Considered

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# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Application Number	10/717,422
Filing Date	November 19, 2003
First Named Inventor	Vail III
Group Art Unit	3672
Examiner Name	Unknown
Attorney Docket Number	WEAT/0526.P1
Submission Date	July 30, 2004

Sheet 9 of 29

## NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
	C1	HAHN, ET AL., "Simultaneous Drill and Case Technology - Case Histories, Status and Options for Further Development," Society of Petroleum Engineers, IADC/SPE Drilling Conference, New Orleans, LA Feb. 23-25, 2000 pp. 1-9.	
	C2	M.B. STONE and J. SMITH, "Expandable Tubulars and Casing Drilling are Options" Drilling Contractor, January/February 2002, pp. 52.	
	C3	M. GELFGAT, "Retractable Bits Development and Application" Transactions of the ASME, Vol. 120, June (1998), pp. 124-130.	
	C4	"First Success with Casing-Drilling" Word Oil, February (1999), pp. 25.	
	C5	DEAN E. GADDY, Editor, "Russia Shares Technical Know-How with U.S." Oil & Gas Journal, March (1999), pp. 51-52 and 54-56.	
	C6	United States Patent Application 10/794,800, filed March 5, 2004 (WEAT/0360)	
	C7	United States Patent Application 10/832,804, filed April 27, 2004 (WEAT/0383.P1)	
	C8	United States Patent Application 10/795,214, filed March 5, 2004 (WEAT/0373)	
	C9	United States Patent Application 10/794,795, filed March 5, 2004 (WEAT/0357)	
	C10	United States Patent Application 10/775,048, filed February 9, 2004 (WEAT/0359)	
	C11	United States Patent Application 10/772,217, filed February 2, 2004 (WEAT/0344)	
	C12	United States Patent Application 10/788,976, filed February 27, 2004 (WEAT/0372)	

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Application Number	10/717,422
Filing Date	November 19, 2003
First Named Inventor	Vail III
Group Art Unit	3672
Examiner Name	Unknown
Attorney Docket Number	WEAT/0526.P1
Submission Date	July 30, 2004

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of 29

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
	C13	United States Patent Application 10/794,797, filed March 5, 2004 (WEAT/0371)	
	C14	United States Patent Application 10/767,322, filed January 29, 2004 (WEAT/0343)	
	C15	United States Patent Application 10/795,129, filed March 5, 2004 (WEAT/0366)	
	C16	United States Patent Application 10/794,790, filed March 5, 2004 (WEAT/0329)	
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	C18	Rotary Steerable Technology – Technology Gains Momentum, Oil & Gas Journal, 12/28/1998	
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	C21		
	C22		
	C23		
	C24		

Examiner

Date Considered

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Substitute for form 1449A/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)		Application Number	10/717,422
		Filing Date	November 19, 2003
		First Named Inventor	Vail III
		Group Art Unit	3672
		Examiner Name	Unknown
		Attorney Docket Number	WEAT/0528.P1
		Submission Date	July 30, 2004
Sheet	11	of	29

**U.S. Patent Documents**

*Examiner Initial		Document Number	Issue Date	Applicant(s) Name	Class	Subclass	Filing Date If Appropriate
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	A121	6,554,064	04-29-2003	Restarick et al.			
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77	A141	6,374,924	04-23-2002	Hanton et al.			
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Examiner

*Frank [Signature]*

Date Considered

*8/12/04*

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				Filing Date	November 19, 2003
				First Named Inventor	Vail III
				Group Art Unit	3672
				Examiner Name	Unknown
				Attorney Docket Number	WEAT/0526.P1
				Submission Date	July 30, 2004
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*Examine r Initial		Document Number	Issue Date	Applicant(s) Name	Class	Subclass	Filing Date If Appropriate
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Examiner <i>Frederick</i>					Date Considered <i>8/12/04</i>		
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# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Application Number

10/717,422

Filing Date

November 19, 2003

First Named Inventor

Vail III

Group Art Unit

3672

Examiner Name

Unknown

Attorney Docket Number

WEAT/0526.P1

Submission Date

July 30, 2004

## U.S. Patent Documents

*Examine r Initial		Document Number	Issue Date	Applicant(s) Name	Class	Subclass	Filing Date If Appropriate
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Examiner

Date Considered

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Substitute for form 1449A/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)		Application Number	10/717,422
		Filing Date	November 19, 2003
		First Named Inventor	Vail III
		Group Art Unit	3672
		Examiner Name	Unknown
		Attorney Docket Number	WEAT/0526.P1
		Submission Date	July 30, 2004
Sheet 14	of 29		

**U.S. Patent Documents**

*Examiner Initial		Document Number	Issue Date	Applicant(s) Name	Class	Subclass	Filing Date If Appropriate
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Examiner Eric S. Barr Date Considered 07/26/05

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Substitute for form 1449A/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)		Application Number	10/717,422
		Filing Date	November 19, 2003
		First Named Inventor	Vail III
		Group Art Unit	3672
		Examiner Name	Unknown
		Attorney Docket Number	WEAT/0526.P1
Sheet 15	of 29	Submission Date	July 30, 2004

U.S. Patent Documents								
*Examiner Initial		Document Number	Issue Date	Applicant(s) Name	Class	Subclass	Filing Date If Appropriate	
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	Examiner					Date Considered		

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# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 16

of 29

Application Number 10/717,422

Filing Date November 19, 2003

First Named Inventor Vail III

Group Art Unit 3672

Examiner Name Unknown

Attorney Docket Number WEAT/0526.P1

Submission Date July 30, 2004

## U.S. Patent Documents

*Examiner Initial	Document Number	Issue Date	Applicant(s) Name	Class	Subclass	Filing Date If Appropriate
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	A228	5,255,751	10-26-1993	Stogner		
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Examiner

Date Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with your communication to applicant.





<p>Substitute for form 1449/PTO</p> <p><b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b></p> <p>(Use as many sheets as necessary)</p>		Application Number	10/717,422
		Filing Date	November 19, 2003
		First Named Inventor	Vail III
		Group Art Unit	3672
		Examiner Name	Unknown
		Attorney Docket Number	WEAT/0528.P1
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# **INFORMATION DISCLOSURE STATEMENT BY APPLICANT**

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Application Number

10/717,422

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First Named Inventor

Vail III

Group Art Unit

3672

Examiner Name

Unknown

Attorney Docket Number

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Submission Date

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		First Named Inventor	Vail III
		Group Art Unit	3672
		Examiner Name	Unknown
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# **INFORMATION DISCLOSURE STATEMENT BY APPLICANT**

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Filing Date	November 19, 2003
First Named Inventor	Vail III
Group Art Unit	3672
Examiner Name	Unknown
Attorney Docket Number	WEAT/0526.P1
Submission Date	July 30, 2004

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November 19, 2003

First Named Inventor

Vail III

Group Art Unit

3672

Examiner Name

Unknown

Attorney Docket Number

WEAT/0526.P1

Submission Date

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Substitute for form 1449A/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)		Application Number	10/717,422
		Filing Date	November 19, 2003
		First Named Inventor	Vail III
		Group Art Unit	3672
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Examiner <i>[Signature]</i>					Date Considered <i>8/1/05</i>		
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				Filing Date		November 19, 2003	
				First Named Inventor		Vail III	
				Group Art Unit		3672	
				Examiner Name		Unknown	
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*Examine Initial		Document Number	Date	Country	Class	Subclass	Translation	
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7	B74	WO 02/086287	10-31-2002	WIPO	E21B	47/01	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	B75	WO 01/94739	12-13-2001	WIPO	E21B	7/20	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	B76	WO 01/94738	12-13-2001	WIPO	E21B	7/20	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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	B78	WO 01/79650	10-25-2001	WIPO	E21B	10/60	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	B79	WO 01/46550	06-28-2001	WIPO	E21B	7/20	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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	B82	WO 00/28188	05-18-2000	WIPO	E21B	7/06	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	B83	WO 00/37771	06-29-2000	WIPO	E21B	43/10	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	B84	WO 00/11311	03-02-2000	WIPO	E21B	19/16	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	B85	WO 00/11310	03-02-2000	WIPO	E21B	19/16	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	B86	WO 00/11309	03-02-2000	WIPO	E21B	19/16	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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	B88	WO 98/55730	12-10-1998	WIPO	E21B	23/00	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	B89	WO 97/08418	03-06-1997	WIPO	E21E	4/18	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	B90	GB 2 357 101	06-13-2001	UK	E21B	7/06	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	B91	EP 1 050 661	11-08-2000	EP	E21B	7/18	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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B94		SU 1618870	01-07-1991	Russia	E21B	33/14	<input type="checkbox"/>	<input checked="" type="checkbox"/>
B95		WO 96/28635	09-19-1996	WIPO	E21B	17/14	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Examiner		Date Considered	
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Substitute for form 1449A/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)		Application Number	10/717,422		
		Filing Date	November 19, 2003		
		First Named Inventor	Vail III		
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First Named Inventor

Vall III

Group Art Unit

3672

Examiner Name

Unknown

Attorney Docket Number

WEAT/0526.P1

Submission Date

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Substitute for form 1449A/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>		Application Number	10/717,422
		Filing Date	November 19, 2003
		First Named Inventor	Vail III
		Group Art Unit	3672
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	C57	Sander, et al., "Project Management And Technology Provide Enhanced Performance For Shallow Horizontal Wells," IADC/SPE Paper 74466, IADC/SPE Drilling Conference, February 26-28, 2002, pp. 1-9
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Examiner <i>[Signature]</i>		Date Considered <i>[Signature]</i>
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with your communication to applicant.		



Substitute for form 1449A/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)		Application Number	10/717,422
		Filing Date	November 19, 2003
		First Named Inventor	Vail III
		Group Art Unit	3672
		Examiner Name	Unknown
		Attorney Docket Number	WEAT/0526.P1
Sheet 27	of 29	Submission Date	July 30, 2004

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*Examiner Initial		Including Author, Title, Date, Pertinent Pages, Etc.
7	C60	Fontenot, et al., "New Rig Design Enhances Casing Drilling Operations In Lobo Trend," paper WOCD-0306-04, World Oil Casing Drilling Technical Conference, March 6-7, 2003, pp. 1-13
	C61	McKay, et al., "New Developments In The Technology Of Drilling With Casing: Utilizing A Displaceable DrillShoe Tool," Paper WOCD-0306-05, World Oil Casing Drilling Technical Conference, March 6-7, 2003, pp. 1-11
	C62	Sutriano - Santos, et al., "Drilling With Casing Advances To Floating Drilling Unit With Surface BOP Employed," Paper WOCD-0307-01, World Oil Casing Drilling Technical Conference, March 6-7, 2003, pp. 1-7
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	C64	Maute, "Electrical Logging: State-of-the Art," The Log Analyst, May-June 1992, pp. 206-27
	C65	Tessari, et al., "Retrievable Tools Provide Flexibility for Casing Drilling," Paper No. WOCD-0306-01, World Oil Casing Drilling Technical Conference, 2003, pp. 1-11
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	C68	Rotary Drilling, Casing and Cementing, Unit II, Lesson 4, Second Edition
	C69	Rotary Drilling, Drilling a Straight Hole, Unit II, Lesson 3, Second Edition
	C70	Rotary Drilling, The Bit, Unit I, Lesson 2, Third Edition
	C71	Rotary Drilling, Blowout Prevention, Unit III, Lesson 3, Third Edition
7	C72	Well Servicing and Workover, Artificial Lift Methods, Lesson 5, Petroleum Extension Service, The University of Texas at Austin, Austin, Texas
7	C73	Rotary Drilling, Drilling Mud, Unit II, Lesson 2, Third Edition

Examiner

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		First Named Inventor	Vail III
		Group Art Unit	3672
		Examiner Name	Unknown
		Attorney Docket Number	WEAT/0526.P1
Sheet 28	of 29	Submission Date	July 30, 2004

**OTHER ART**

*Examiner Initial		Including Author, Title, Date, Pertinent Pages, Etc.
	C74	Rotary Drilling, Subsea Blowout Preventers and Marine Riser Systems, Unit III, Lesson 4
	C75	Well Servicing and Workover, Control of Formation Pressure, Lesson 9, Petroleum Extension Service, The University of Texas at Austin, Austin, Texas
	C76	Well Servicing and Workover, Production Rig Equipment, Lesson 6, Petroleum Extension Service, The University of Texas at Austin, Austin, Texas
	C77	Well Servicing and Workover, Petroleum Geology and Reservoirs, Lesson 2, Petroleum Extension Service, The University of Texas at Austin, Austin, Texas
	C78	Well Servicing and Workover, Well Logging Methods, Lesson 3, Petroleum Extension Service, The University of Texas at Austin, Austin, Texas
	C79	Well Servicing and Workover, Introduction to Oil Well Service and Workover, Lesson 1, Petroleum Extension Service, The University of Texas at Austin, Austin, Texas
	C80	Well Servicing and Workover, Well Completion Methods, Lesson 4, Petroleum Extension Service, The University of Texas at Austin, Austin, Texas
	C81	Rotary Drilling, Controlled Directional Drilling, Unit III, Lesson 1, Third Edition
	C82	Well Servicing and Workover, Well Stimulation Treatments, Lesson 11, Petroleum Extension Service, The University of Texas at Austin, Austin, Texas
	C83	Rotary Drilling, Making Hole, Unit II, Lesson 1, Second Edition
	C84	Well Servicing and Workover, Well Cleanout and Repair Methods, Lesson 8, Petroleum Extension Service, The University of Texas at Austin, Austin, Texas
	C85	Well Servicing and Workover, Well Servicing and Repair, Lesson 7, Petroleum Extension Service, The University of Texas at Austin, Austin, Texas
	C86	Rotary Drilling, Circulating Systems, Unit I, Lesson 8, Third Edition
	C87	Well Servicing and Workover, Well Service and Workover Profitability, Lesson 12, Petroleum Extension Service, The University of Texas at Austin, Austin, Texas

Examiner

Date Considered

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				Group Art Unit	3672
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				Attorney Docket Number	WEAT/0526.P1
				Sheet 29	of 29

## OTHER ART

[illegible]

**Examiner**

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 1

JAN 24 2005

of 12

Application Number	10/717,422
Filing Date	November 19, 2003
First Named Inventor	William Banning Vail, III
Group Art Unit	3672
Examiner Name	Unknown
Attorney Docket Number	WEAT/0526.P1
Customer No.	36735
Submission Date	

**U.S. PATENT DOCUMENTS**

Examiner Initials <sup>1</sup>	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
7	A1	US-2,167,338	07-25-1939	Murcell	
	A2	US-2,228,503	01-14-1941	Boyd, et al.	
	A3	US-2,370,832	03-06-1945	Baker	
	A4	US-2,379,800	07-03-1945	Hare	
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Examiner Initials <sup>1</sup>	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>8</sup>
		Number-Kind Code <sup>2</sup> (if known)				
7	B1	CA 2 335 192	11-30-2001	Kozak		
	B2	DE 3 523 221	02-01-1987	Svetozar		
	B3	DE 3 918 132	12-14-1989	Eriksson		
	B4	EP 0 474 481	03-11-1992	Moody		
	B5	EP 0 087 373	08-31-1983	Plaquin		

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# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Application Number	10/717,422
Filing Date	November 19, 2003
First Named Inventor	William Banning Vail, III
Group Art Unit	3672
Examiner Name	Unknown
Attorney Docket Number	WEAT/0526.P1
Customer No.	36735
Submission Date	

Sheet 2 of 12

## U.S. PATENT DOCUMENTS

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		Number-Kind Code <sup>2</sup> (if known)			
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		Number-Kind Code <sup>2</sup> (if known)				
7	B6	EP 0 162 000	11-21-1985	Hamilton		
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	B9	EP 0 426 123	05-08-1991	Reis, et al.		
7	B10	EP 0 525 247	02-03-1993	Willis		

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# **INFORMATION DISCLOSURE STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Application Number 10/717,422

Filing Date November 19, 2003

First Named Inventor William Banning Vail, III

Group Art Unit 3672

Examiner Name Unknown

Attorney Docket Number WEAT/0526.P1

Customer No. 36735

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Submission Date

## **U.S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
7	A37	US-4,227,197	10-07-1980	Nimmo, et al.	
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	A39	US-4,277,197	07-07-1981	Bingham	
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		Number-Kind Code <sup>2</sup> (if known)				
	B11	EP 0 589 823	03-03-1994	Busink, et al.		
	B12	EP 0 659 975	06-28-1995	Nagaoka, et al.		
	B13	EP 0 790 386	08-20-1997	Newton, et al.		
	B14	EP 0 881 354	04-24-1998	Vercaemen, et al.		
	B15	EP 0 962 384	12-08-1999	Poldervaart		

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**INFORMATION DISCLOSURE  
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Application Number	10/717,422
Filing Date	November 19, 2003
First Named Inventor	William Banning Vail, III
Group Art Unit	3672
Examiner Name	Unknown
Attorney Docket Number	WEAT/0526.P1
Customer No.	36735
Submission Date	

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		Number-Kind Code <sup>2</sup> (if known)			
7	A55	US-4,646,827	03-03-1987	Cobb	
	A56	US-4,649,777	03-17-1987	Buck	
	A57	US-4,667,752	05-26-1987	Berry, et al.	
	A58	US-4,676,312	06-30-1987	Mosing, et al.	
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	A60	US-4,691,587	09-08-1987	Farrand, et al.	
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	A63	US-4,738,145	04-19-1988	Vincent, et al.	
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	A66	US-4,765,401	08-23-1988	Boyadjieff	
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	A71	US-4,791,997	12-20-1988	Krasnov	
	A72	US-4,793,422	12-27-1988	Krasnov	

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		Number-Kind Code <sup>2</sup> (if known)				
7	B16	EP 1 256 691	11-13-2002	Hawkins, et al.		
	B17	FR 2 841 293	12-26-2003	Bouygues Offshore		
	B18	GB 2 115 940	09-14-1983	Plaquin		
	B19	GB 2 224 481	09-05-1990	Voeten		
	B20	GB 2 275 486	04-15-1993	Elane, et al.		

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Application Number	10/717,422
Filing Date	November 19, 2003
First Named Inventor	William Banning Vail, III
Group Art Unit	3672
Examiner Name	Unknown
Attorney Docket Number	WEAT/0526.P1
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Sheet 5

of 12

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7	A73	US-4,800,968	01-31-1989	Shaw, et al.	
	A74	US-4,806,928	02-21-1989	Veneruso	
	A75	US-4,813,493	03-21-1989	Shaw, et al.	
	A76	US-4,836,064	06-06-1989	Slator	
	A77	US-4,867,236	09-19-1989	Haney, et al.	
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	A79	US-4,901,069	02-13-1990	Veneruso	
	A80	US-4,936,382	06-26-1990	Thomas	
	A81	US-4,962,579	10-16-1990	Moyer, et al.	
	A82	US-5,009,265	04-23-1991	Bailey, et al.	
	A83	US-5,036,927	08-06-1991	Willis	
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Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Number-Kind Code <sup>2</sup> (if known)				
7	B21	GB 2 294 715	08-05-1996	Tibbitts		
	B22	GB 2 349 401	11-01-2000	Roberts, et al.		
	B23	GB 2 352 747	07-02-2001	Davis, et al.		
	B24	GB 2 357 530	06-27-2001	Schulze-Beckinghausen		
	B25	GB 2 372 765	09-04-2002	Head		

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Application Number	10/717,422
Filing Date	November 19, 2003
First Named Inventor	William Banning Vail, III
Group Art Unit	3672
Examiner Name	Unknown
Attorney Docket Number	WEAT/0526.P1
Customer No.	36735
Submission Date	

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**U.S. PATENT DOCUMENTS**

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		Number-Kind Code <sup>2</sup> (if known)			
7	A91	US-5,271,468	12-21-1993	Streich, et al.	
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	A93	US-5,332,043	07-26-1994	Ferguson	
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**FOREIGN PATENT DOCUMENTS**

Examiner Initials <sup>*</sup>	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Number-Kind Code <sup>2</sup> (if known)				
7	B26	GB 709 365	05-19-1954	Standard Oil Development		
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Date Considered

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# **INFORMATION DISCLOSURE STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Application Number	10/717,422
Filing Date	November 19, 2003
First Named Inventor	William Banning Vail, III
Group Art Unit	3672
Examiner Name	Unknown
Attorney Docket Number	WEAT/0526.P1
Customer No.	36735
Submission Date	

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## **U.S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
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	A121	US-5,836,395	11-17-1998	Budde	
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		Number-Kind Code <sup>2</sup> (if known)				
	B31	WO 00/39429	07-06-2000	Pietras		
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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Application Number	10/717,422
Filing Date	November 19, 2003
First Named Inventor	William Banning Vail, III
Group Art Unit	3672
Examiner Name	Unknown
Attorney Docket Number	WEAT/0526.P1
Customer No.	36735
Submission Date	

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		Number-Kind Code <sup>2</sup> (if known)			
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	B38	WO 93/07358	04-15-1993	Elane, et al.		
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	B40	WO 98/05844	02-12-1998	Stokka		

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STATEMENT BY APPLICANT**

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Application Number	10/717,422
Filing Date	November 19, 2003
First Named Inventor	William Banning Vail, III
Group Art Unit	3672
Examiner Name	Unknown
Attorney Docket Number	WEAT/0526.P1
Customer No.	36735
Submission Date	

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of 12

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		Number-Kind Code <sup>2</sup> (if known)			
7	A155	US-6,698,595	03-02-2004	Norell, et al.	
	A156	US-6,725,938	04-27-2004	Pietras	
	A157	US-6,742,596	06-01-2004	Haugen	
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	A159	US-2002/0070842	04-17-2003	Bailey, et al.	
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	A162	US-2003/0056947	03-27-2003	Cameron	
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	A170	US-2004/0060697	04-01-2004	Tilton, et al.	
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		Number-Kind Code <sup>2</sup> (if known)				
	B41	WO 98/11322	03-19-1998	Gjedebo		
	B42	WO 98/32948	07-30-1998	Pietras		
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	B44	WO 99/41485	08-19-1999	Pietras		
	B45	WO 99/58810	11-18-1999	Abrahamsen, et al.		

Examiner

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STATEMENT BY APPLICANT**

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Application Number	10/717,422
Filing Date	November 19, 2003
First Named Inventor	William Banning Vail, III
Group Art Unit	3672
Examiner Name	Unknown
Attorney Docket Number	WEAT/0526.P1
Customer No.	36735
Submission Date	

Sheet 10

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**U.S. PATENT DOCUMENTS**

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		Number-Kind Code <sup>2</sup> (if known)			
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	A174	US-2004/0112646	06-17-2004	Vail	
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	A187	US-			
	A188	US-			
	A189	US-			
	A190	US-			

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		Number-Kind Code <sup>2</sup> (if known)				
	B46	FR 2741907	06-06-1997	Leighton		
	B47					
	B48					
	B49					
	B50					

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

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Application Number	10/717,422
Filing Date	November 19, 2003
First Named Inventor	William Banning Vail, III
Group Art Unit	3672
Examiner Name	Unknown
Attorney Docket Number	WEAT/0526.P1
Customer No.	36735
Submission Date	

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of 12

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
7		DETLEF HAHN, FRIEDHELM MAKOHL, and LARRY WATKINS, Casing-While Drilling System Reduces Hole Collapse Risks, Offshore, Pages 54, 56, and 59, February 1998	
		YAKOV A. GELFGAT, MIKHAIL Y. GELFGAT and YURI S. LOPATIN, Retractable Drill Bit Technology – Drilling Without Pulling Out Drillpipe, Advanced Drilling Solutions Lessons From the FSU; June 2003; Vol. 2, pps. 351-464	
		TOMMY WARREN, SPE, BRUCE HOUTCHENS, SPE, GARRET MADELL, SPE, Directional Drilling With Casing, SPE/IADC 79914, Tesco Corporation, SPE/IADC Drilling Conference 2003	
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		MIKE KILLALEA, Portable Top Drives: What's Driving The Market?, IADC, Drilling Contractor, September 1994, 4 Pages	
7		500 or 650 ECIS Top Drive, Advanced Permanent Magnet Motor Technology, TESCO Drilling Technology, April 1998, 2 Pages	

Examiner

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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

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Application Number	10/717,422
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Filing Date	November 19, 2003
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First Named Inventor	William Banning Vail, III
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Examiner Name	Unknown
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Attorney Docket Number	WEAT/0526.P1
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**500 or 650 HCIS Top Drive, Powerful Hydraulic Compact Top Drive Drilling System, TESCO Drilling Technology, April 1998, 2 Pages**

Product Information (Sections 1-10) CANRIG Drilling Technology, Ltd., September 18, 1996

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